

STAROVEROVA, A.G.; KRUTKOVA, A.S.; RAYKHSHTAT, G.N.; TIKHOMIROVA, L.I.

Epidemiological role of carriers of toxigenous diphtheria cultures under various epidemiological conditions. Trudy IEMG no.8:101-112 '61

(MIRA 17:2)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii, mikrobiologii i gigiyeny (for Staroverova, Krutkova). 2. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo i Kominternovskogo rayonov (for Raykhshtat, Tikhomirova).

L 00966-66 EFT(l)/T/E,A(h) IJP(c) A¹

ACCESSION NR: AP5020082

UR/0079/65/035/008/1336/1340
621.794.4 : 546.289 : 546.681/2

AUTHOR: Orlova, G. M.; Tikhomirova, L. I.

TITLE: Chemical etching of semiconductor compounds type A^{IV} and A^{III}B^V in an alkali solution of potassium ferricyanide

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1336-1340

TOPIC TAGS: etched crystal, germanium semiconductor, gallium compound, gallium arsenide, indium compound, chemical kinetics, semiconductor single crystal, phosphide, antimonide, germanium single crystal

ABSTRACT: The kinetics of chemical etching of single crystals of germanium, gallium phosphide, gallium arsenide, gallium antimonide and indium antimonide was studied in an 0.18 molar solution of potassium ferricyanide in 1.0 molar KOH. The rate of etching w in g-moles/cm².sec was calculated from the formula

$$w = \frac{\Delta g}{M \cdot \Delta t \cdot g}$$

where Δg is change in sample weight during time Δt in seconds; M is molecular weight,

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and s is sample surface area in cm^2 . The single crystal surfaces were examined with an MIM-7 microscope. The etching was done in non-agitated as well as in agitated (400 rpm) media in the 20-45°C range. The relationship between rate of etching and temperature for gallium phosphide in an alkaline solution of potassium ferricyanide is shown in fig. 1 of the Enclosure. Etching rate as a function of temperature for various other semiconductors is given in fig. 2 of the Enclosure. The rate of heterogeneous chemical reaction is used to control etching of gallium phosphide. Etching of germanium, gallium arsenide and gallium antimonide is controlled by diffusion. The ionic character increases in the following sequence: InSb > GaSb > GaAs > GaP.
"The authors thank N. A. Goryunova for supplying the single crystals of gallium phosphide and V. S. Vekshina for supplying the single crystals of gallium antimonide."
Orig. art. has: 4 figures, 1 table.

ASSOCIATION: Leningradskiy gosudrastvennyy universitet (Leningrad State University)

SUBMITTED: 02Jul64

ENCL: 02

SUB CODE: GC, SS

NO REF SOV: 010

OTHER: 005

Card 2/4

L 00966-66

ACCESSION NR: AP5020082

ENCLOSURE: 01

O

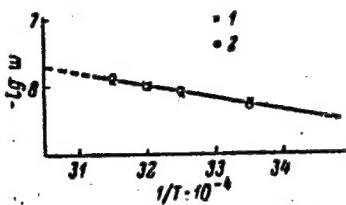


Fig. 1. Relationship between $\log w$ and $1/T$ for etching of gallium phosphide in an alkaline solution of potassium ferricyanide: 1--agitated solution; 2--quiet solution.

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I 00966-66

ACCESSION NR: AP5020082

ENCLOSURE: 02

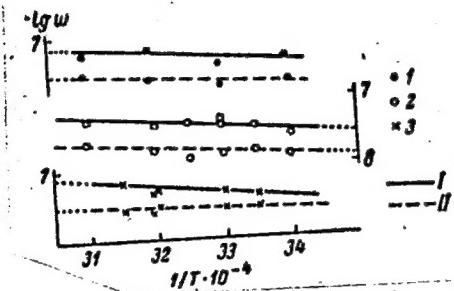


Fig. 2. $\log w$ as a function of $1/T$ for etching of germanium (1), gallium arsenide (2) and gallium antimonide (3) in an alkaline solution of potassium ferricyanide:
I--agitated solution; II--quiet solution.

Card 4/4

Tikhomirova, L.I.

SAMSONOV, G.V.; POPOVA, N.M.; TIKHOMIROVA, L.I.

Preparation of cerium monosulfide. Zhur. prikl. khim. 31 no.2:
153-157 F '58. (MIRA 11:5)
(Cerium sulfides)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2"

REF ID: A651740
ACCESSION NR. A651740

AUTHOR: Vernon V. Williams, Yuri V. Kondratenko, Ivan A. A.
Berkley, Yu. V. Nizol'skaya, E. V. Tikhonova

TITLE: Mechanism of polymorphic transformation of diamond to graphite

SOURCE: AN SSSR. Doklady, v. 162, no. 5, 1965, p. 1121

TOPIC: diamond, graphite, synthetic diamond, carbon, graphite, graphite polymorphic transformation, high pressure diamond synthesis

ABSTRACT: The absence of a generally accepted explanation of the mechanism of polymorphic transformation of graphite at high temperatures prompted this research. The authors studied the transformation of graphite to diamond at high temperatures by the method of pyrolytic graphite. It is shown that the transformation of graphite to diamond is accompanied by a definite orientation of the diamond lattice in the transition area. The micrographene and x-ray diffraction patterns obtained during the transition area clearly show a definite orientation of the diamond lattice in the transition area. The authors propose a model of the mechanism of the transformation of graphite to diamond.

RECORDED BY: [unclear]
Card 1/2

L 57865-65
ACCESSION NR: AP5017452

2
Series numbered from left to right in the sequence indicated in block 1 of the original document.

ABSTRACT

REF ID: A617556

NO REF Sov: 002

Card 2/2

22406

S/035/61/000/005/002/042
A001/A101

3,1520

AUTHORS: Vinogradova, R.G., Rozhnova, I.A., Tikhomirova, L.N.

TITLE: Harmonic analyzers of frequency spectrum of non-periodic electric oscillations

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 21, abstract 5A148 ("Sb. rabot po vopr. elektromekhan. In-t elektromekhan. AN SSSR", 1960, no. 4, 276 - 281)

TEXT: The authors describe briefly the eight-channel harmonic analyzer.. (electric circuit diagrams are presented) which was constructed at MDM(IEM) of AS USSR for studying the frequency spectrum of stellar scintillation with the purpose of determining the optimum frequency of light flux modulation in the automatic star-guidance system of telescopes. This instrument, together with the MPO-2 (MPO-2) oscillograph, provides for the wide possibilities of studying various fluctuation processes. The mean, maximum and envelope amplitudes of harmonics can be determined on the basis of oscillograms. The time of frequency spectrum analysis amounts to a few tenths of a second. The error of the instrument (measurements) does not exceed 10%.

S. Zhuravlev

[Abstracter's note: Complete translation]

Card 1/1

/C

KOBULASHVILI, Sh.N.; ROTENBERG, A.G.; TIKHOMIROVA, L.N.; KAMINARSKAYA, A.K.;
KOTOVICH, A.G.

Quick-freeze GKA-2 apparatus mounted on a gravity conveyor. Khol.tekh.
39 no.4:4-11 Jl-Ag '62. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy pro-myshlennosti (for Kobulashvili, Rotenberg, Tikhomirova, Kaminarskaya).
2. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchenshil'nosti; promyshlennosti (for Kotovich).

TIKHOMIROVA, L. N.

TABLE I. WORK INVESTIGATION

REV/7705

Abstracts work done. Subject: Automobiles.

Briefly report on purposes, literature studied, 1) Electromagnetic stability, electrically driven, interaction type, no permanent load, electromagnetic regulation, electrically driven, interaction load, interaction, permanent magnet, electromechanical system; 2) Collection of Works on Problems of Friction, Automatic and Manual, 1) Friction (Collection of Works on Friction, Electric Drive, A-C Electric Friction, Automatic and Manual, Electric Machines, Electric Drive, A-C Electric Friction and Instruments); 3) Work, No. 11, Electric Drive, Automatic Regulation and Instruments; 4) Work, No. 12, Electric Drive of Vehicles, 5,000 copies printed.

Work, No. 13, T. V. Shchelkunova, M. G. Polubinskaya, Sov. J. Tech. Sci., 1960, No. 2, p. 5,000 copies printed.

Work, No. 14, T. V. Shchelkunova.

Purpose: Main collection of works is intended for specialists in science and industry.

Content: The collection contains 22 works divided into three sections: 1) Electrical Machines, 2) Electric Drive and Electric Friction, 3) Problems of Friction and Automatic Regulation most of the articles.

Author: T. V. Shchelkunova, M. G. Polubinskaya, Sov. J. Tech. Sci.

APPROVED ELECTRIC MACHINES, AUTOMATIC REGULATION
AND FRICTION

Abstracts. The main problems of automating the electric drive of automobiles	157
Brackets. I. P. Kostomarov and V. D. Chavdarov. Application of Mechanical Coordinate Walls. Application to Automotoring Problem	158
Brackets. P. V. Prokhorov. Optimum Form of Automobile Chassis or Suspension	159
Brackets. P. L. Sogolov. Analysis	162
Brackets. A. N. Bondar. Method of Making the Order of Order Rings	165
Filaments. V. I. Linn and A. N. Melnikov. Radiation of RWA from Silica Filaments with a Special Protection	168
Frequencies. V. V. Savchenko and Yu. A. Tsvetkov. Relaxation of Electrostatic Interaction for Limiting the Dynamics of Regulating the Speed of a Wiperblade. Sov. Pat. No. 1,000,000, Publ. No. 1,000,000, Publ. Date 1960, Inventor: V. V. Savchenko and Yu. A. Tsvetkov, The Radiating Part of a Frequency Electroacoustical Generator Equipped With Insulator	173
Implications. I. P. Kostomarov. Application of Optimal Programming for Broadcast-Station Circuits	180
Ingestion. M. B. A. Method of Optimal Programming for Measuring Electro- magnetic Fields of Electric Machines	183
Ingestion. I. P. Kostomarov and Yu. A. Tsvetkov. Measuring Noise with Using Frequency Components of Electric Signals	190
Ingestion. V. V. Savchenko and Yu. A. Tsvetkov. Measuring Noise with Using Frequency Components of Electric Signals	193
Ingestion. I. P. Kostomarov and Yu. A. Tsvetkov. Measuring Noise with Using Frequency Components of Electric Signals	196

L 38960-66 EWT(d)/EWT(l)/EWP(k)/EWP(h)/T-2/EWP(v)/EWP(l) WW
ACC NR: AP6020031 (N) SOURCE CODE: UR/0066/66/000/002/0022/0025

AUTHOR: Rotenberg, A. G. (Candidate of technical sciences); Tikhomirova, L. N. 24

ORG: All-Union Scientific-Research Institute of the Refrigeration Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti) 23

TITLE: Back-pressure valves with a damper device

SOURCE: Kholodil'naya tekhnika, no. 2, 1966, 22-25

TOPIC TAGS: valve, refrigeration equipment , REFRIGERATION ENGINEERING

ABSTRACT: The authors describe back-pressure valves which are mounted on the heating pipelines of the compressors of refrigerating devices. They serve to prevent the overflow of ammonia from the high pressure side to the low pressure side and to eliminate the escape of ammonia from the high-pressure line into the atmosphere if the compressor breaks down. The back-pressure valves utilize a polysluoroethylene resin seal and piston damping. Two types of back-pressure valves are described: 1) direct-flow and 2) angular back-pressure valves. The direct-flow back-pressure valves can be installed in horizontal and vertical positions and the angular back-pressure valves only in a vertical position. Tests carried out on a stand at different pressures showed that closing of the valve upon back flow of the

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UDC: 621.646

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ACC NR: AP6020031

medium was accompanied by its negligible escape into the atmosphere. At an initial pressure in the vessel from 0.5 to 2 gauge atm. the drop of pressure owing to escape of the medium did not exceed 0.05 kg/cm². The authors recommend the direct-flow back-pressure valves for wide use in refrigerating devices since they are smaller and lighter than the angular valves and can be installed horizontally and vertically. Orig. art. has: 1 table and 4 figures.

SUB CODE: 13/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

2/2 ✓

Card

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2

TIKHOMIROVA, L.P.; TOLOCHEC, A.I.

Determination of the density of coke. Standartizatsia 22 no.7:
59-61 J1 '64.
(MIRA 17:11)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2"

9.3277

S/194/61/000/011/069/070
D271/D302

AUTHORS: Prokopovich, Z.I. and Tikhomirova, L.P.

TITLE: Pulse-code modulation converters

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 11, 1961, 8, abstract 11 L40 (Tr. nauchno-tekhn.
konferentsii Leningr. elekrotekhn. in-ta svyazi,
no. 1, L., 1961, 67-72)TEXT: The conversion of a continuous signal into a pulse-
code represents a complex of the several following operations:
Quantization of the signal in time, quantization of the signal level,
and coding of the level. Level quantization and coding are always
done together. Three methods of coding are used: 1) Counting; 2)
weighing, or the method of step compensation; 3) counting of pulses
in a certain time interval by means of a binary counter. At the
receiving end of the system a decoder reconstitutes a continuous
signal out of the pulse-code. The block diagram is discussed of a
VB

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Pulse-code modulation converters

S/194/61/000/011/069/070
D271/D302

coder based on the weighing method and of a decoder with a 7-digit shift register. 2 references. *[Abstracter's note: Complete trans-*

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R

Card 2/2

AUERMAN, L.Ya.; SUVOROVA, M.A.; TIKHOMIROVA, L.V.

Determining the compressibility of bread crumb on a penetrometer.
Izv. vys ucheb. zav.; pishch. tekhn. no. 125-128 '60. (MIRA 14:8)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promysh-
lennosti, Kafedra tekhnologii khlebopekarnogo proizvodstva.
(Bread) (Penetrometers)

TIKHOMIROVA, L.V.

Characteristics of the diurnal variation of air temperature
in the southeast of Western Siberia. Trudy NIIAK no.33:
80-88 '65.
(MIRA 18:12)

SOTSKAYA, V.P.; SMIRNOV, V.A.; TIKHOMIROVA, L.Ya.

Effect of pH on alcohol yield in the thermal treatment of
crushed raw materials. Izv. vys. ucheb. zav.; pishch. tekhn.
no.6:67-69 '63. (MIRA 17:3)

1. Leningradskiy mezhotraslevoy nauchno-issledovatel'skiy
institut pishchevoy promyshlennosti, laboratoriya tekhnologii
spirta.

TIKHOMIROVA, L.Ye., uchitel' nitsa.

Young rabbit breeders of the Losino-Petrovskii secondary school.
Est. v shkole no.2:72-73 Mr-Ap '56. (MIRA 9:7)
(Mature study) (Rabbits)

L 28010-66 EWT(m)

ACC NR: AP6018198

SOURCE CODE: UR/0241/65/010/012/0030/0034

AUTHOR: Lberman, A. N.; Vaynshteyn, P. R.; Krisyuk, E. M.; Tikhomirova, N. D. 23
13

ORG: Leningrad Scientific Research Institute of Radiation Hygiene, Ministry of Public Health, RSFSR (Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy gigigiene Ministerstva zdravookhraneniya RSFSR)

TITLE: Characteristics of radiation sickness induced by soft rays 19

SOURCE: Meditsinskaya radiobiologiya, v. 10, no. 12, 1965, 30-34

TOPIC TAGS: radiation sickness, mouse, x-ray irradiation, blood, radiation biologic effect

ABSTRACT: The object of the experiments described in this article was to determine the effect of a single sublethal dose of soft rays on the skin, body weight, and leukocyte index of the peripheral blood of irradiated mice. Albino mice of both sexes and 24 to 29 grams in weight were used in the experiments. All of the experimental animals were subjected to the action of x-rays administered in a dose of 4,130 r. A distinct picture of radiation sickness developed in all of the animals, characterized by clearly visible lesions of the skin layers; a decrease in weight averaging 26 percent for the females and 20 percent for the males by the 21st day after the irradiation; a sharp increase in the leukocyte count of the peripheral

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UDC: 617-001.26-092.9

L 28010-66

ACC NR: AP6018198

blood. Observations established that the loss of weight and the increase in the leukocyte count of the peripheral blood coincided with the development of the skin lesions, providing a basis for the premise that they may be associated with the development of the skin afflictions induced by radiation sickness and marked by skin dehydration and the development of intoxication due to the decomposition of the proteins in the affected areas of the skin. Orig. art. has: 1 figure. /JPRS/

SUB CODE: 06 / SUBM DATE: 12Aug64 / ORIG REF: 003 / OTH REF: 002

Card 2/2 (pl)

L 28010-66 EWT(m)

ACC NR: APG018198

SOURCE CODE: UR/0241/65/010/012/0030/0034

AUTHOR: Lberman, A. N.; Vaynshteyn, P. R.; Krisyuk, E. M.; Tikhomirova, M. D.

23

B

ORG: Leningrad Scientific Research Institute of Radiation Hygiene, Ministry of
Public Health, RSFSR (Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy
gigiyeny Ministerstva zdravookhraneniya RSFSR)TITLE: Characteristics of radiation sickness induced by soft rays

SOURCE: Meditsinskaya radiobiologiya, v. 10, no. 12, 1965, 30-34

TOPIC TAGS: radiation sickness, mouse, x-ray irradiation, blood, radiation biologic effect

ABSTRACT: The object of the experiments described in this article was to determine the effect of a single sublethal dose of soft rays on the skin, body weight, and leukocyte index of the peripheral blood of irradiated mice. Albino mice of both sexes and 24 to 29 grams in weight were used in the experiments. All of the experimental animals were subjected to the action of x-rays administered in a dose of 4,130 r. A distinct picture of radiation sickness developed in all of the animals, characterized by clearly visible lesions of the skin layers; a decrease in weight averaging 26 percent for the females and 20 percent for the males by the 21st day after the irradiation; a sharp increase in the leukocyte count of the peripheral

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UDC: 617-001.26-092.9

L 28010-66

ACC NR: AP6018198

blood. Observations established that the loss of weight and the increase in the leukocyte count of the peripheral blood coincided with the development of the skin lesions; providing a basis for the premise that they may be associated with the development of the skin afflictions induced by radiation sickness and marked by skin dehydration and the development of intoxication due to the decomposition of the proteins in the affected areas of the skin. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: 12Aug64 / ORIG REF: 003 / OTH REF: 002

Card 2/2 (la)

CHEBUKOV, M.F., kand.tekhn.nauk; TIKHOMIROVA, M.F., inzh.

Using lime ash binding material for producing concrete and reinforced concrete. Bet.i zhel.-bet. 9 no.12:551-554 D '63. (MIRA 17:2)

TIKHOVYKOVA, M.F., inzh.; NAUMENKO, A.S., inzh.; YANTSEN, T.G., inzh.

Mixed lime-ash cement on a base of ash from electric stations
in the Middle Ural Economic Region. Sbor. trud. Sverd. nauch.-
issl. inst. po stroi. no.10:34-50 '63.

(MIRA 17:10)

CA

22

Preparation and properties of
products of pyrolysis and cracking. M. Tikhomirova.
Azerbaidzhansk Neftegaz Khayalitov 1934, No. 10,
p. 6.—In the oxidation of the ethylene fraction (60%
 CH_4 and 40% CH_2) without preheating the gas mixt.,
a max. yield of HCHO amtg. to 164 g. per cu. m. of gas
was obtained at 440–450°. The yield was only 73 g.
when using pure O_2 at 370°. The highest yield when
preheating was obtained at 310–320°. The application
of a Cu gauze in addn. to V_2O_5 pppt. on asbestos lowered
the yield of HCHO . The highest degree of oxidation was
obtained in 8–10 recyclings of the gas mixt., addnl.
recycling being of little advantage. In oxidizing by the
above method unfractionated gas from pyrolyzed or vapor-
phase gases, about 70 g. of HCHO per cu. m. of gas was
obtained.

A. A. Bochtingk.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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KURBATOV, A. D., TIKHOVYRA, M. M.

Sex - Cause and Determination

Basal metabolism in animals and sex of progeny. Agrobiologija, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

TIKHOMIROVA, M. M.

KURBATOV, A.D.; TIKHOMIROVA, M.M.

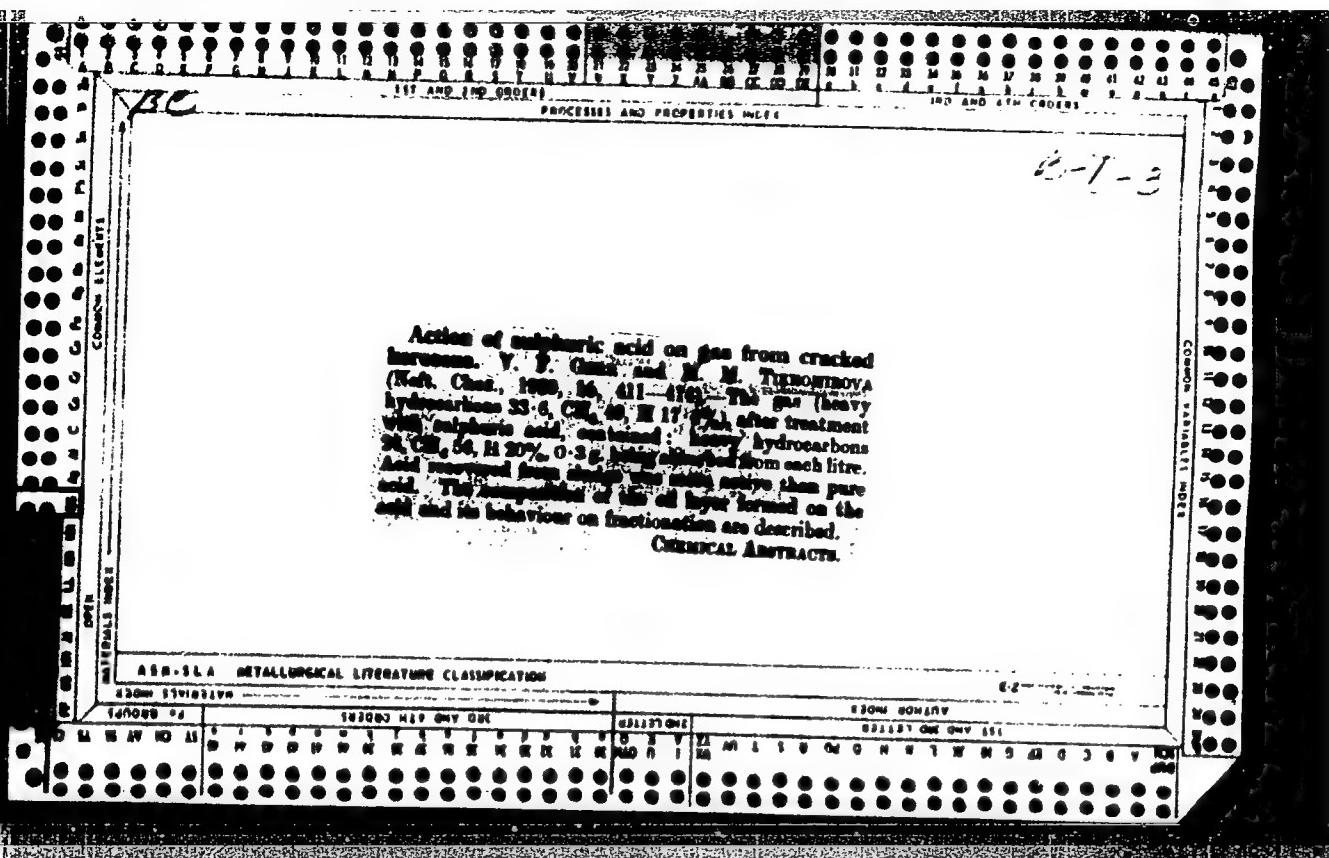
Effect of the intensity of basal metabolism in animals on the
ratio of sexes in their progeny. Uch.zap.Len.un. no.165 '53.
(MLRA 7:?)

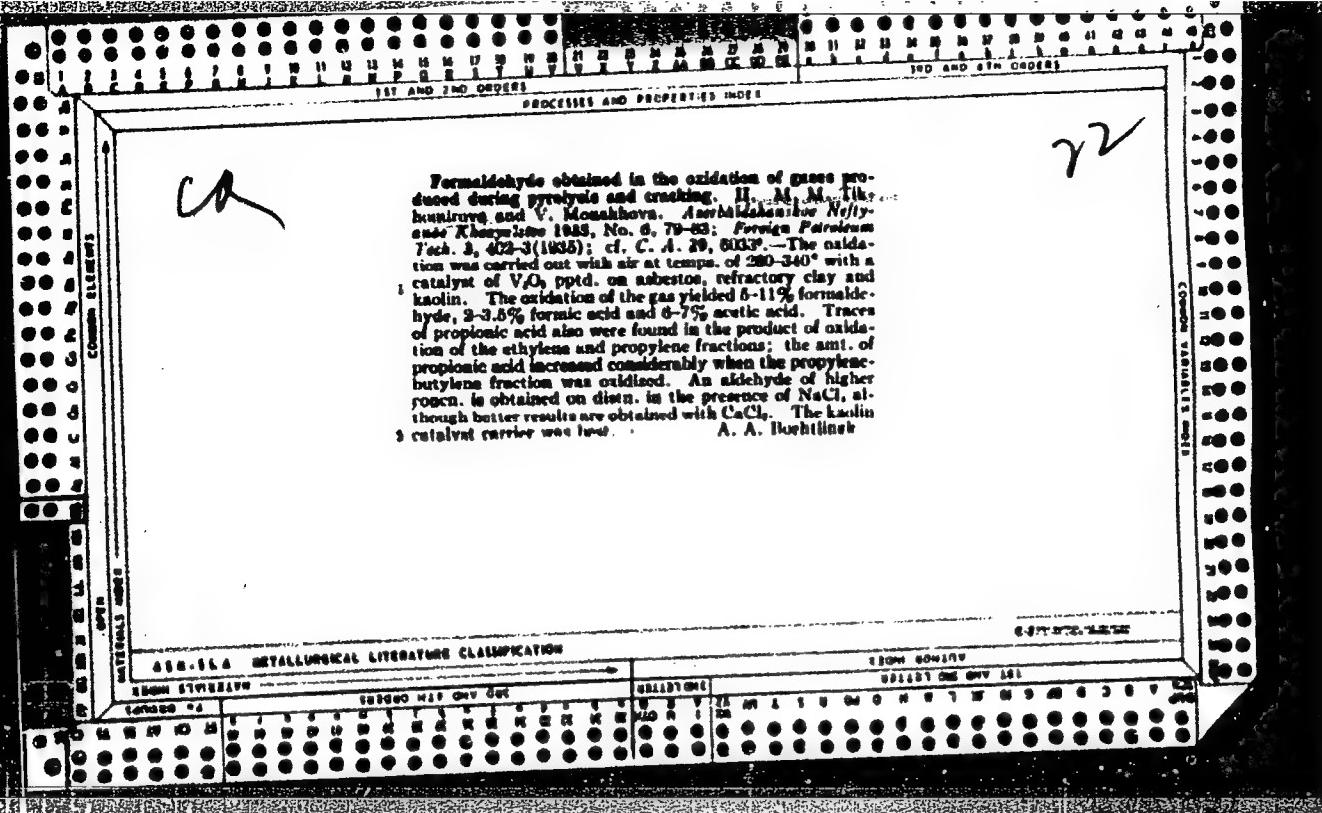
1. Laboratoiya genetiki zhivotnykh kafedry genetiki i selektsii
(zaveduyushchiy kafedroy professor N.V.Turbin)
(Metabolism) (Sex(Biology))

TIKHOMIROVA, M. M.

TIKHOMIROVA, M. M.: "The effect of the intensity and nature of metabolism in animals on the relation between the sexes in the offspring". Leningrad, 1955. Leningrad Order of Lenin State U imeni A. A. Zhdanov. (Dissertations for the Degree of Candidate of Biological Sciences.)

So: Knizhnaya letopis' No. 49, 3 December 1955. Moscow.





TAGEYEVA, N.V.; TIKHOMIROVA, M.M.

Geochemistry of the natural waters of the Uzboy region. Doklady Akad. Nauk
S.S.R. 84, 1201-2 '52.
(MLRA 5:7)
(CA 47 no.22:12705 '53)

TIKHOHOMIROVA, M.M., starshiy prepodavatel'.

"Geodesy." P.V.Denzin. Reviewed by M.M.Tikhomirova. Sbor.
st.po.geod. no.8:93-96 '54. (MIRA 9:6)
(Geodesy) (Denzin, P.V.)

TIKHOMIROVA, M. M.

Geochemistry of the magnesium-sodium chloride waters. 62
N. V. Tagleva and M. M. Tikhomirova. *Nauk. Akad.*
Nauk S.S.R. 96, 121-4 (1964).—Result of the reactions
of the type 2NaCl (soln.) + Mg (in country rocks) =
 $\text{MgCl}_2 + \text{Na}$ (in the mineral constituents of colloidal country
rocks) have been often discussed to explain the Mg^{2+} con-
tent of the ocean water. Exptl. studies of the authors on
the nature of underground waters demonstrated that the
reaction mentioned above is not the most important; they
observed (1) an exchange of Na^+ and Ca^{2+} in chloride solns.
in colloid surface rocks, followed by the reaction $\text{CaCl}_2 +$
 $\text{Mg}(\text{SO}_4\text{HCO}_3)_2 \rightleftharpoons \text{MgCl}_2 + \text{Ca}(\text{SO}_4\text{HCO}_3)_2$, with
pptn. of calcite and CaSO_4 . This reaction is characteris-
tic for arid climates, e.g. in the basin of the Caspian Sea,
or in the desert of Kara-Kumy. (2) First the equil. of
base exchange of Ca sulfate or carbonate with Na-enriched
marine sediments, forming Na_2SO_4 and carbonate solutions
which react in a second stage with CaCl_2 to ppt. CaSO_4 and
 CaCO_3 ; Na^+ thus disappears from the solns., while Mg^{2+}
from residual/marine brines persists in the waters of the
Mg/Na chloride type. Residual brines as mentioned
are frequent in the Russian platform in the wide fields
between the Ural and the Carpathian Mts. The geochem.
coeff. of those waters is the ratio $\text{Mg}(\text{SO}_4\text{HCO}_3)_2/\text{MgCl}_2$. The base exchange of sea water with sediments
of the continents is especially a $\text{Na}^+ \rightleftharpoons \text{Ca}^{2+}$ exchange,
and the reaction $\text{CaCl}_2 + \text{MgSO}_4 \rightleftharpoons \text{MgCl}_2 + \text{CaSO}_4$ takes
place. The geochem. coefficient is in normal sea water ~
0.50, but much higher in sea water basins surrounded by con-
tinents, e.g. ~ 15.22 for the water of the Caspian Sea.
Lake Aral has a sulfate-sodic compn. type. V. V. Titel

Lab Hydrogeol. Problem
in F. P. Savaren'skiy.

TIKHOMIROV, M. M.

TAGEYeva, N.V.; TIKHOMIROVA, M.M.

Certain features in the early diagenesis of sedimentary rocks
in the northwestern regions of the Black Sea. Dokl. AN SSSR
112 no.3:513-515 Ja '57. (MLRA 10:4)

1. Laboratoriya gidrogeologicheskikh problem im. F.P. Savarenского
Akademii nauk SSSR. Predstavлено академиком D.I. Shcherbakovym.
(Black Sea region--Rocks, Sedimentary)

ZYBINA, Ye.V.; TIKHOMIROVA, M.M.

Nature of the sex chromatin. Tsitologiya 7 no.5:585-601
S-0 '65. (MIRA 18:12)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR
i kafedra genetiki Leningradskogo universiteta. Submitted
June 30, 1964.

ZYBINA, Ye.V.; TIKHOMIROVA, M.M.

Endomitotic polyploidization of trophoblast giant cells.
Sbor. rab. Inst. tsit. no.5:53-63 '63. (MIRA 17:2)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR
i kafedra genetiki Leningradskogo gosudarstvennogo universiteta.

TIKHOMIROVA, M.M.

Study of the aftereffect of X rays on the primary nondisjunction
of X chromosomes. Trudy MOIP. Otd. biol. 7:198-202 '63.
(MIRA 16:11)

TIKHOMIROVA, M.M.

New data on the maps of general boundary marking of Russia. Sbor.
st.po kart. no.13:101 '61. (MIRA 15:5)
(Geography--Maps)

TAGEYEVA, Nadezhda Viktorovna; TIKHOMIROVA, Mariya Matveyevna;
PEREL'MAN, A.I., doktor geol.-miner. nauk, otv. red.;
FILIPPOVA, B.S., red. izd-va; DOROKHINA, I.N., tekhn. red.

[Geochemistry of the bottom sediments in the Black Sea (north-western part)] Gidrogeokhimiia donnykh osadkov Chernogo moria
(severo-zapadnaiia chast'). Moskva, Izd-vo Akad. nauk SSSR,
1962. 145 p. (MIRA 16:1)

(Black Sea--Deep-sea deposits)
(Geochemistry)

S/169/62/000/010/054/071
D228/D307

AUTHORS: Tageyeva, N.V., Tikhomirova, M.M. and Korunova, V.V.

TITLE: Water during the diagenesis of marine sediments
(in the example of the northern seas)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 7,
abstract 10V61 (In collection: Sovrem. osadki morey
i okeanov, M., AN SSSR, 1961, 577-596)

TEXT: Data on the chemical composition of bottom sediments
and the muddy (interstitial) waters held in them are given for the
Central Arctic basin of the Barents, Kara, Chukotsk and Bering Seas.
In comparison with ocean water these latter are enriched in I by
150-200 times, in Zn by 10-15 times, and in Cu, B, K and Br (only
by 10-20%). There is a tendency for the concentration of I and B
to grow in muddy water, and for that of Zn to diminish, as the pH
increases.

Abstracter's note: Complete translation

Card 1/1

TIKHOMIROVA, M.M.

Effect of X rays on the nondisjunction of X-chromosomes. Issl.
po gen. no. 1:19-24 '61. (M&A 15:1)
(X RAYS—PHYSIOLOGICAL EFFECT) (CHROMOSOMES)

TAGEYEVA, N.V.; TIKHOMIROVA, M.M.

Determining the composition of exchange cations in sediments of
the Caspian Sea. Trudy Lab. gidrogeol. probl. 30:48-56 '60.
(MIRA 14:4)

(Caspian Sea—Cations)

TIKHOMIROVA, M.M.

Possibilities of using general boundary maps for the study
of landform dynamics. Vest.Mosk. un. Ser.5: Geog. 15
no.4:38-45 Jl - Ag '60. (MIRA 13:9)

1. Kafedra geodezii i kartografii Moskovskogo universiteta.
(Physical geography—Maps)

TIKHOMIROVA, M.M.; TAGEYEVA, N.V.

Experimental geochemical study of the formation of types of under-
ground waters. Trudy Lab.gidrogeol.probl. 16:261-284 '58. (MIRA 12:2)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P. Savarenetskogo
AN SSSR.
(Water, Underground)

TIKHOMIROVA, M. M.
RUMANIA / Cosmochemistry, Geochemistry, Hydrochemistry. D

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60537.

Author : N. V. Tageyeva, M. M. Tikhomirova.

Inst : -

Title : Some Features of Early Diagenesis of Deposits in
North-Western Part of Black Sea.

Orig Pub: An. Rom.-Sov. Ser. geol.-geogr., 1958, 12, No 1,
25-28.

Abstract: Translation. See RZhKhim, 1957, 21058.

Card 1/1

58

"APPROVED FOR RELEASE: 07/16/2001

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APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2"

KAZAKOV, A.V.; TIKHOMIROVA, M.M.; PLOTNIKOVA, V.I.

Carbonate equilibrium systems (dolomite, magnesite). Trudy Inst.
geol. nauk no.152:13-58 '57. (MIRA 10:9)
(Dolomite) (Magnesite) (Carbonates (Mineralogy))

KAZAKOV, A.V.; TIKHOMIROVA, M.M.; PLOTNIKOVA, V.I.

The FeO--CO₂--H₂O system and conclusions drawn from the paragenesis
of siderites and phosphorites. Trudy Inst. geol. nauk no.152:59-71
'57. (MLRA 10:9)

(Siderite) (Phosphorites)

TAGEYEVA, Nadezhda Viktorovna; TIKHOMIROVA, Mariya Matveyevna;
TEODOROVICH, G.I., doktor geol.-min. nauk, otv. red.;
FILIPPOVA, B.S., red. izd-va; PRUSAKOVA, T.A., tekhn. red.

[Geochemistry of interstitial waters in the diagenesis of marine
sediments; as revealed by the study of sediments in the Caspian
Sea] Geokhimiia porovykh vod pri diageneze morskikh osadkov; na
primere osadkov Kaspiiskogo moria. Moskva, Izd-vo Akad. nauk
SSSR, 1962. 244 p.
(Caspian Sea—Deep-sea deposits)

TIKHOMIROVA, M.M.

Nondisjunction of chromosomes following X-ray irradiation of different wave length and intensity. Issl. po gen. no.2:56-64 '64.
(MIRA 18:4)

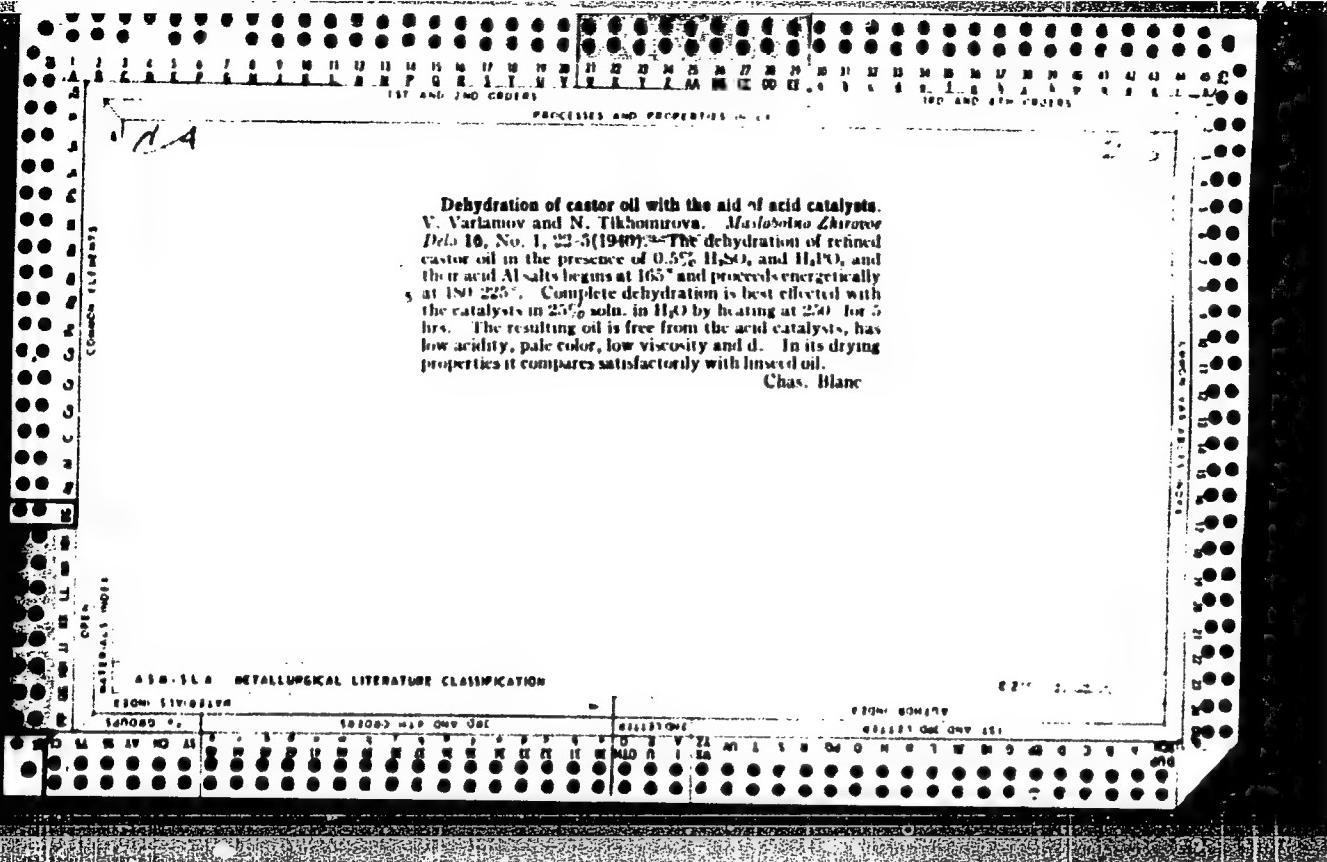
TIKHOMIROVA, M.M.; DUBROVA, S.Ye.; YANUSH, I.M.

Comparative study of radiation aftereffect on the nondisjunction
of chromosomes. Issl. po gen. no.2:65-68 '64. (MIRA 18:4)

OTESPL No. 45

Fominova, I.I. and Tikhomolova, M.P. (A. V. Zhurkov Leningrad State University). The
structure of Butlerov's oxoetenoic ($\text{CH}_3)_2\text{C}=\text{C}(\text{OH})(\text{CH}_3)_2$, 613-6

Akademiya Nauk S.S.R., Doklady Vol. 79 No. 4



ROMANTSEV, Ye.F.; TIKHOMIROVA, M.V.

Protection of animals from gamma rays with the help of some
aminophenones. Radiobiologija 3 no.1:126-129 '63.

(MIRA 16:2)

(GAMMA RAYS--SAFETY MEASURES) (PROPIOPHENONE)
(ACETOPHENONE) (BUTYROPHENONE)

TIKHOMIROVA, M.V.; YEVSEYEVA, N.K.; SHISHAKOVA, I.A. (Moskva)

Amount of copper in the blood of animals during subacute radiation
injury. Pat. fiziol. i eksp. terap. 5 no.4:69-70 Jl-Ag '61.

(MIRA 14:9)

(COPPER IN THE BODY)

(RADIATION SICKNESS)

TIKHOMIROVA, N.

Reliable helpers. NTO 4 no.1:25-26 Ja '62. (MIRA 15:1)

1. Uch~~nyy~~ sekretar' Leningradskogo oblastnogo soveta nauchno-tekhnicheskikh obshchestv.
(Leningrad Province--Research, Industrial)

SOKHRINA, Raissa Fedorovna, nauchnyy sotrudnik; CHELPANOVA, Ol'ga Mikhaylovna, kand.geogr.nauk; SHAROVA, Valeriya Yakovlevna, kand.geogr.nauk. Prinimali uchastiye: RUBINSHTEYN, Ye.S., prof.; DROZDOV, O.A., prof., doktor geograf.nauk, red.; PRIK, Z.M.; PISAREVA, G.P., nauchnyy sotrudnik; GALINA, M.B.; KOSENKOVA, Z.D.; TIKHO-MIROVA, N.A.; FEDOSEYeva, G.N.; POKROVSKAYA, T.V., kand.geograf.nauk, red.; PISAREVSKAYA, V.D., red.; VOLKOV, N.V., tekhn.red.

[Air pressure, air temperature and atmospheric precipitation in the Northern Hemisphere] Davlenie vozdukha, temperatura vozdukha i atmosfernye osadki severnogo polushariia. Pod red. O.A.Drozdova i T.V.Pokrovskoi. Leningrad, Gidrometeor.izd-vo, 1959. 473 p. [Atlas of charts] Atlas kart. (MIRA 13:4) (Meteorology--Charts, diagrams, etc.)

UFLYAND, Yu. M.; TIKHOMIROVA, N. A.; FARFEL', M. N.

Fifty years of activity for the Department of Physiology of the
Leningrad Sanitary Hygienic Medical Institute. Trudy LSGMI 64:
7-39 '61. (MIRA 15:7)

(PHYSIOLOGY)

TIKHOMIROVA, N. A.

Effect of local cooling on the state of the neuromuscular system.
Trudy LSGMI 64:236-246 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(COLD—PHYSIOLOGICAL EFFECT)
(NERVOUS SYSTEM)
(MUSCLES)

TIKHOMIROVA, N. A.

Contractile ability of muscles during their cooling. Trudy
LSGMI 64:247-258 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(MUSCLES—MOTILITY)
(COLD—PHYSIOLOGICAL EFFECT)

TIKHOMIROVA, N. A.

State of cooled muscles in the varying excitability of the nerve
centers. Trudy ISGMI 64:299-306 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(COLD—PHYSIOLOGICAL EFFECT)
(MUSCLES—INNERVATION)

STISHOV, S.N.; TIKHOMIROVA, N.A.

Phase diagram for tellurium. Zhur. eksp. i teor. fiz. 49 no.2:
618-620 Ag '65. (MIRA 18:9)

1. Institut kristallografi. AN SSSR.

L 44731-66 EWT(m)/EWP(t)/ETI IJP(c) JD/MW/JG
ACC NR: AP6031982 SOURCE CODE: UR/0386/66/004/005/0161/0164

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.; Tonkov, Ye. Yu.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografii Akademii nauk SSSR)

TITLE: The maximum on the melting curve of tellurium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 4, no. 5, 1966, 161-164

TOPIC TAGS: tellurium, melting point, phase transition, pressure effect, high pressure research

ABSTRACT: The purpose of the investigation was to ascertain whether the compression curve of melting liquid tellurium is perfectly smooth in the region of the maximum observed on its melting curve, or whether it has some singularities pointing to the localization of this anomaly in a definite region of pressures and temperatures. To this end, the authors continued their earlier work (ZhETF v. 49, 618, 1965) and made a detailed study of the melting curve of tellurium, from which they deduced a localized change in the properties of liquid tellurium along the melting curve. The pressure was produced by compressing gasoline or silicone oil in a high-pressure multiplicator, and was measured with a manganin manometer accurate to 50 kg/cm^2 . The temperature was measured with a chromel-alumel thermocouple accurate to 0.2°C . The purity of the investigated tellurium was 99.999%. The melting curve of tellurium was plotted up to $18,000 \text{ kg/cm}^2$. The curve showed three distinct sections: initial, up to $\sim 3800 \text{ kg/cm}^2$,

Card 1/2

L 04/87-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/WM/AT

ACC NR: AP6024469

SOURCE CODE: UR/0181/66/008/007/2084/2086

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Turyanitsa, I. D.; Fridkin, V. M.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: Photoconductivity of SbI₃ and BiI₃ single crystals at high hydrostatic pressures

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2084-2086

TOPIC TAGS: photoconductivity, spectral distribution, antimony compound, bismuth compound, iodide, forbidden band, pressure effect, carrier lifetime, electron recombination

ABSTRACT: Rhombohedral crystals were grown from the gas phase in the form of plates measuring 0.1 x 0.5 cm and their photoconductivity was investigated at pressures up to 14,000 atmospheres at room temperature. The measurements were made in a high-pressure multiplicator using a procedure described earlier (FIZ v. 7, 1037, 1965 and earlier). The tests yielded plots of the spectral distribution of the photocurrent, the variation of the width of the forbidden gap with pressure, and the pressure dependence of the relative density of the dark current. The tests have shown that the maxima of the spectral distribution of the photocurrent shifts toward longer wavelengths for both crystals. The pressure dependence of the photocurrent was also measured. In SbI₃ a strong increase in the photocurrent is accompanied also by an increase in the dark current, whereas in BiI₃, the dark current decreases under pressure;

Card 1/2

L 04787-67

ACC NR: AP6024469

while the photocurrent increases slowly. The observed increase in photocurrent is explained in accordance with a mechanism proposed in the earlier papers, wherein the increase in the photocurrent is due to the increase of the lifetime of the nonequilibrium carriers, which in turn is due to the change in the distance between the Fermi level and the recombination level. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 20/ SUBM DATE: 10Dec65/ ORIG REF: 003/ OTH REF: 002

Card 2/2

STISHOV, S.M.; TIKHOMIROVA, N.A.

Methods for leading thermocouples into high-pressure chambers.
Prib. i tekhn. eksp. 10 no.5:251 S-0 '65.

(MIRA 1981)

i. Institut kristallografi AN SSSR, Moskva. Submitted Sept.4,
1964.

STISHOV, S.M.; TIKHOMIROVA, N.A.

Melting curves for bismuth telluride (Bi_2Te_3) and antimony tel-
luride (Sb_2Te_3) at high pressures. Pis'. v red. Zhur. eksper. i
teor. fiz. 1 no.1:20-22 Ap '65. (MIRA 18:9)

1. Institut kristallografii AN SSSR.

18618-66 EM(1)/EMF(1)/T/ETC(1) EM/W
44,55
KCC/NTR AP5027048

SOURCE CODE: UR/0120/65/000/005/0251/0251

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.

44,55
ORIG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografi AN SSSR)

44,55
TITLE: Methods for thermocouple introduction into high pressure chambers

SOURCE: Pribory i tekhnika eksperimenta, no.5, 1965, 251

TOPIC TAGS: thermocouple, temperature measurement, high pressure chamber, measuring instrument

9M

68

B

ABSTRACT: The highest experimental errors during temperature measurements in internally heated high-pressure chambers are due to additional thermal emf's generated at the junctions between thermocouple terminals and the steel connectors. The authors found that Chromel and Alumel cones with 12° opening angle and bases with 2.5 and 1.2 mm in diameter can successfully withstand hydrostatic pressures up to 30 katm and can survive numerous load cycles. A second method used introduces connector wires through epoxy resin gaskets. This alternate method is employed and successfully tested under pressures up to ~ 25 katm. A third method, using the compensation of the additional emf's is also described. Tests show that parasitic emf's do not exceed 0.01 mv, which for a chromel-alumel thermocouple corresponds to less than 0.25C. Orig. art. has: 1 figure.

UDC: 536.532:539.89

SUB CODE: TD / SUBM DATE: 04Sep64 / OTH REF: 003

Card 1/1 jrn

L 9259-66 EWT(1)/EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/T/EWP(k)/EWP(b)/EWA(c) IJP(c).

ACC NR: AP5022712 JD/MM/YY/GG/AT SOURCE CODE: UR/0181/65/007/009/2723/2725

44, 55 44, 55 44, 55 44, 55

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Turyanitsa, I. D.; Fridkin, V. M.

ORG: Institute of Crystallography AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: Photoconductivity of HgI₂ single crystals under high hydrostatic pressures

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2723-2725

TOPIC TAGS: mercury compound, iodide, single crystal, photoconductivity, pressure effect, high pressure research

ABSTRACT: Photocurrent was studied as a function of pressure up to 17,000 atmospheres at room temperature in single crystals of HgI₂. Measurements were made on tetragonal single crystals (red mercuric iodide) grown from solution. Curves are given showing photocurrent as a function of incident wavelength for various hydrostatic pressures. The long-wave maximum corresponding to the fundamental absorption edge is shifted into the longer wave region as the pressure is increased. This maximum is located at 580 μ (E = 2.14 ev) at atmospheric pressure. The change in energy with pressure conforms to the law $dE/dP = -(9 \pm 0.7) \cdot 10^{-6}$ ev/at. The photocurrent first decreases with pressure increase, passing through a minimum in the neighborhood of 700 atmospheres, and then increases with pressure up to 12,000 atmospheres. At about 13,000 atmospheres, a phase transition is observed which is accompanied by a drop in photo-

Card 1/2

2

L 9259-66

ACC NR: AP5022712

current. Thus the minimum at 7000 atmospheres is not due to a phase transition and is apparently caused by a change in carrier lifetime. This hypothesis is used as a basis for a model explaining the complex relationship between photocurrent and pressure for this compound. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 20,07/ SUBM DATE: 01Apr65/ ORIG REF: 005/ OTH REF: 004

Card 2/2 (pw)

129-58-8-4/16

AUTHORS: Tikhomirov, A. V., Sukhobokova, N. V. and Tikhomirova, N.A.
Engineers

TITLE: Embrittlement of the Steel 20KhN14S2 During the Process
of Ageing at 500 to 650°C (Okhrupchivaniye stali
20KhN14S2 v protsesse stareniya pri 500-650°)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 8,
pp 22-25 + 1 plate (USSR)

ABSTRACT: Austenitic stainless steels which are used for components
operating inside corrosive media at elevated temperatures
should be stable against inter-crystallite corrosion and
possess sufficiently high mechanical properties during
the entire service life. However, almost all the steels
of this class are subjected to varying degrees of
dispersion hardening which brings about embrittlement and
inclination to develop inter-crystallite corrosion. The
authors investigated the stability of the Soviet steel
20KhN14S2 which is used as material for special power
generation equipment; the chemical analyses of the
experimental melts were as follows:

No. 25557 - 0.08% C, 2.35% Si, 0.93% Mn, 20.2% Cr,
13.23% Ni, 0.013% S, 0.025% P.

No. 25622 - 0.08% C, 2.83% Si, 1.14% Mn, 21.10% Cr,
13.24% Ni, 0.012% S, 0.022% P.

Card 1/3

129-58-8-4/16

Embrittlement of the Steel 20KhN14S2 During the Process of
Ageing at 500 to 650°C

It was found that, compared with the austenised state, preliminary stabilisation only brings about a conservation of the properties during ageing at a certain level but does not influence the reduction or the increase in the degree of embrittlement. The change of the impact strength of stainless steels with a tendency to embrittlement during ageing appears to comply with a definite relation. An analogous relation (decrease of the impact strength during ageing) was found to exist for the Steel EI448 investigated at the Central Works Laboratory of the imeni S. Ordzhonikidze Works. On the basis of the obtained results the authors arrived at the following conclusions:

- 1) During ageing in the temperature range 500 to 650°C the investigated steel has a tendency to embrittlement, thus reducing the ductility and particularly the impact strength.
- 2) The greatest reduction in the impact strength at a certain temperature takes place at the initial period of ageing, i.e. during the first 200 to 300 hours. During

Card 2/3

129-58-8-4/16

Embrittlement of the Steel 20KhN14S2 During the Process of
Ageing at 500 to 650°C

the further ageing the decrease in the impact strength is less intensive.

3) Stabilisation of the investigated steel after hardening does not influence appreciably the process of ageing. The final degree of embrittlement is practically equal in the case of hardening for obtaining austenite as well as in the case of hardening followed by stabilisation.

4) The investigated steel showed a tendency to inter-crystallite corrosion in tests carried out according to the method A-2 of the specifications GOST-6032-51.

There are 6 figures and 1 table.

ASSOCIATION: Podol'skiy mashinostroitel'nyy zavod imeni Ordzhonikidze (Podol'sk Engineering Works imeni Ordzhonikidze)

1. Stainless steel--Hardening 2. Stainless steel--Properties

Card 3/3 3. Stainless steel--Test results

84127

9.6180

AUTHORS: Tikhomirova, N.A., Zalesskiy, A.V. and
Tambovtsev, D.A.

TITLE: The Application of Strain Gauges for Measuring the
Compressibility of Solid Bodies at High Hydrostatic
Pressures

PERIODICAL: Kristallografiya, 1960, Vol. 5, No. 5,
pp. 823 - 825

TEXT: X-ray and thermographic methods of detecting phase transitions under very high pressures are technically very complicated and it has been shown that it is sufficient for the detection of first- and second-order phase transitions to measure compressibility as a function of pressure. The difficulty is then to provide a sufficiently sensitive pressure gauge. Here, a method of measuring the changes in the linear dimensions of a specimen is described. A strain gauge is cemented to the specimen in the pressure chamber which is filled with isopentane or benzol B-70 and changes in length of 0.0001% can be detected. The high pressure in the bomb is supplied by a multiplier and may reach 20 000 kg/cm². The pressure is read from a manganin pressure gauge to an accuracy of 100 kg/cm². The Card 1/2

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84127

S/070/60/005/005/016/017
E132/E360

The Application of Strain Gauges for Measuring the Compressibility of Solid Bodies at High Hydrostatic Pressures

/the two gauges is measured with simple Wheatstone bridges. Only three electrical lead-throughs into the pressure vessel are required. The pressure dependence of the resistance of the strain gage and the other leads in the absence of a specimen has to be determined by a separate calibration. The correction amounts to about 4 ohms in 100. Compressibility curves for CsI, NaCl, LiF, Fe and a low-compressibility alloy T15K6 are reproduced and compared with Bridgman's figures. The accuracy appears to be high. It is intended to apply the method further for measuring anisotropic compressibilities which could not be studied by Bridgman's technique. There are 3 figures and 9 references: 5 Soviet and 4 English.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography of the AS USSR)

SUBMITTED: February 16, 1960

Card 2/2

S/070/62/007/005/012/014
E132/E460

AUTHORS: Zheludev, I.S., Tikhomirova, N.A., Fridkin, V.M.

TITLE: The ferroelectric properties of triglycine sulphate
under high hydrostatic pressure

PERIODICAL: Kristallografiya, v.7, no.5, 1962, 795-797

TEXT: The conductivity and ferroelectric properties of crystals
of triglycine sulphate have been measured under hydrostatic
pressures of up to 25000 atm. The pressure was applied in a
multiplier, isopentane being used to transmit the pressure, which
was measured with a manganin resistance manometer to an accuracy
of 100 kg/cm². The temperature was controlled to 1°C and the
hysteresis loop at 50 c/s was recorded together with the
susceptibility at 800 c/s. With increasing pressure the height
of the loop (spontaneous polarization) decreases by a factor of 3
at the highest pressure and the coercive field increases slightly.
The dielectric constant decreased monotonically with pressure to
about 50% of its value at atmospheric pressure. The reverse
current increased by a factor of about 2 and the Curie
temperature rose by 1.6×10^{-3} °C/atm. The results show that at
Card 1/2

The ferroelectric properties ...

S/070/62/007/005/012/014
E132/E460

superhigh pressures the orientation of the domains is hindered
and adsorption gives place to electroconductivity, ionic or
electronic. There are 4 figures.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: December 20, 1961

Card 2/2

TIKHOMIROVA, N.A.; STISHOV, S.M.

Melting curve of tellurium at pressures up to 23,000 kg./cm².
Zhur.eksp.i teor.fiz. 43 no.6:2321 D '62. (MIRA 16:1)

1. Institut kristallografi AN SSSR.
(Melting points) (Tellúrium) (High-pressure research)

L 19567-63EWP(q)/EWT(m)/EWP(B)/BDS
ACCESSION NR: AP3007519 AFFTC/ASD S/0181/63/005/009/2709/2711 JDAUTHOR: Tikhomirova, N. A.; Fridkin, V. M.

TITLE: Photoconductivity of sulfur single crystals at high hydrostatic pressures

SOURCE: Fizika tverdogo tela, v. 5, no. 9, 1963, 2709-2711

TOPIC TAGS: sulfur photoconductivity pressure dependence, sulfur single crystal photoconductivity, sulfur photoconductivity, crystal photoconductivity.

ABSTRACT: A strong increase in the photoconductivity of sulfur single crystals under pressures up to 10,000 atm in an environment of isopentane was observed and investigated. Specimens in the form of plates about 1 mm thick and 0.5 cm square were placed in a condenser and illuminated through a quartz window by an incandescent lamp outside the pressure chamber. The resulting longitudinal photocurrent was plotted against applied voltage at various pressures, and the pressure dependence of the photocurrent was seen to be nearly exponential. The voltage dependence of the photocurrent turns non-linear at high pressures and tends to saturation at high field

Card 1/2

L 19567-63

ACCESSION NR: AP3007519

intensities. These phenomena demonstrate an increase in carrier life and an increase of the stationary secondary photocurrent through the crystal. The measurements of the dependence of the photodepolarization current on the illumination time of the crystal in an electric field revealed that the dependence is exponential and that the saturation level rises with the pressure. It is noted that the relaxation time is nearly independent of the pressure, since the secondary photocurrent apparently does not substantially affect the kinetics of photopolarization. It is concluded that even an insignificant narrowing of the forbidden zone under pressure may result in a sizeable change of lifetime of photocurrent carriers, which is supported by Rose phenomenology theory. Orig. art. has: 2 figures.

ASSOCIATION: Institut kristallografi AN SSSR, Moscow (Institute of Crystallography, AN SSSR)

SUBMITTED: 22Apr63 DATE ACQ: 14Oct63 ENCL: 00

SUB CODE: PH NO REF Sov: 003 OTHER: 005

Card 2/2

SHAKHVELIDZE, G.P. TIKHMIRSOVA, N.A.

Window for optical observations of polycrystalline materials.
tekhn. eksp. 8 no.6:191 N-B '65.

1. Institut kristallografi AM "S.S."

L 38892-66

EWT(1)/ENT(m)/T/EWP(t)/ETI

IJP(c) JD

ACC NR: AP6018559

SOURCE CODE: UR/0181/66/008/006/1907/1909

AUTHOR: Fridkin, V. M.; Gulyamov, K.; Lyakhovitskaya, V. A.; Nosov, V. N.; Tikhomirova, N. A.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: Anomaly of optical properties of ferroelectric SbSI in the phase-transition region

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1907-1909

TOPIC TAGS: antimony compound, phase transition, Curie point, ferroelectric property, forbidden band, pressure effect, paraelectricity, electron interaction, phonon interaction, temperature dependence, absorption edge, optic property

ABSTRACT: This is a continuation of earlier work (DAN SSSR v. 161, 1060, 1965), where an anomalously large shift of the intrinsic-absorption edge was observed in SbSI single crystals with increasing pressure. The present study is devoted to a more detailed investigation of this shift, and discloses that the anomaly appears only in the vicinity of the phase transition. The authors measured the dependence of the width of the forbidden band E_g on the hydrostatic pressure p and the temperature T in the phase-transition region. The crystals were grown from the gas phase, the width of the forbidden band was determined by measuring the shift of the maximum of the photocurrent, and the high pressure was produced with apparatus described elsewhere (FTT v. 7, 4, 1965). The pressure was measured with a resistance manometer and the temperature was

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ACC NR: AP6018559

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measured in a vacuum thermostat. The results show that in the vicinity of the Curie point the values of dE_g/dT and $(\partial E_g/\partial p)_T$ became anomalously large. Away from the phase-transition point, the variation of E_g is the same as determined by the direct electron-phonon interaction $dE_g/dT \approx (\partial E_g/\partial T)_V$, whereas in the phase transition region dE_g/dT is determined by the temperature expansion of the crystal and $dE_g/dT \gg (\partial E_g/\partial T)_V$. On going from the ferroelectric into the paraelectric region, the electron-phonon interaction terms decreases in absolute value by a factor of almost 2. The authors thank V. L. Bonch-Bruyevich, R. A. Suris, and A. P. Levanyuk for a discussion of certain results obtained in the present work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 07Jul65/ ORIG REF: 002/ OTH REF: 003

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L 52972-65 201.01/20P:U/2m
ACCESSION NR: AP5010527

UR/0056/65/048/004/1215/1216

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.

TITLE: Maximum on the melting curve of antimony

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 4, 1965,
1215-1216

TOPIC TAGS: antimony, melting curve, phase transition, second order phase transition, solid state transition, pressure effect

ABSTRACT: A more thorough study than made in the past by other authors was made of antimony melting curves at pressures up to 100 kg/cm². It was found that the melting curve has a maximum at 40 kg/cm², which corresponds to a temperature of 1215°C. At higher pressures the melting curve shifts to lower temperatures. This shift is due to the fact that at higher pressures the melting point of antimony increases. The authors also investigated the effect of pressure on the melting curve of antimony at temperatures above 1215°C.

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L 5207. -c

ACCESSION NR: AP5010527

sures. The thermal effect of this transformation is apparently very small. It is
assumed that the observed triple point is the result of interaction of the melting
and freezing curves of the two phases. The triple point is located at 100°C.
Many melting curves show a slight change in slope near the composition made by 0.01% of
the transition metal sulfide. It is assumed that this is due to the formation of a solid
solution.

Orig. art. has: 2 figures.

ASSOCIATION: Institut kristallografi Akademii nauk SSSR (Institute of Crystallology,
Academy of Sciences, SSSR)

SUBMITTED: 29Jan65

ENCL: 00

SUB CODE: 88

MR REF BOV: 002

OTHER: 002

LL
Card 2/2

ACCESSION NR: AP5011525

UP/0020/65/161/205/10013-2

AUTHORS: Bulyanov, K.; Lyakhovitskaya, V. A.; Tikhomirova, N.A.;
Pridkin, V. M.

TITLE: Anomalously large effect of pressure on the critical and ferroelectric properties of SbSI single crystals.

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1060-1062

TOPIC TAGS: antimony compound, single crystal, ferroelectric property, pressure dependence, Curie point, electric field dependence

ABSTRACT: Earlier investigations of the optical and ferroelectric properties of SbSI single crystals [1] showed that the absorption coefficient αE_{opt} - which is proportional to E_{opt}^2 - increases with pressure, and, probably, that the coefficient αE_{opt} has an anomalously large value. To check on this assumption, we have undertaken measurements of αE_{opt} directly by the photoconductivity method. In order to do this, we have used a special apparatus for measuring the absorption coefficient at low temperatures and pressures.

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ACCESSION NR: AP5011525

an anomalously large shift of the edge of intrinsic absorption and
of the Dutton peak with increasing pressure. The effect was pre-
dicted by the theory of the effect of pressure on the electronic struc-

ture of the solid state. The effect is due to the change in the energy of the
electrons with increasing pressure.

replica of spectrum and figures

ASSOCIATION: Institute of Crystallography AN SSSR (Institute of Cry-
stallography AN SSSR)

SUBMITTED: 27JAN65 ENCL: 01 CIP CODE: 00

NR REF Sov: 003 OTHER: 008

Card 2/3

INCLURE: 01

ACCESSION NR: AP5011525

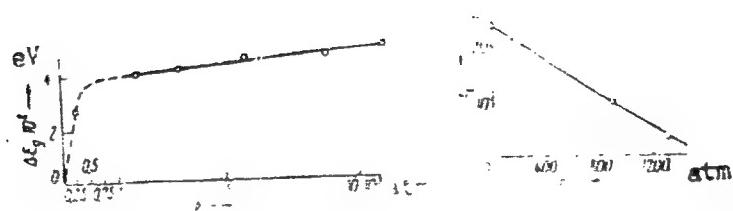


Fig. 1. Pressure variation of the width of the forbidden band (left) and of the Curie temperature (right) in single-crystal SbSI.

Card 3/3

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.

TITLE: Phase diagram of tellurium.

SOURCE: Trudy Akademiicheskogo Instituta po Fizicheskym Materialam i Tekhnologii (AIPMFT), No. 1, 1982.

PHYSICAL SCIENCES

ANALYST: S. M. Stishov, Institute of Physics and Technology

DATE: 10/10/82

PAGE: 1

CONT:

thus revealing for the first time the relationship between the phase diagram and the physical properties of tellurium.

CONT

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Co^{2+} in $\text{Fe}(\text{CN})_6^{4-}$ at $\text{pH} = 4$ (20), 100%.

ACCESSION NR.: APS013666

URV/C386/65/001/001/0020/0022

AUTHOR: Stishov, S. M.; Tikhomirova, E. A.

TITLE: Melting curves of bismuth telluride and antimony telluride at high pressures

SOUT'YE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.
Prilozheniye, v. 1, no. 1, 1965, 20-22

TOPIC TW-8: bismuth telluride, antimony telluride, melting curve, pressure dependence, phase transition

ABSTRACT: To confirm the evidence that Bi_2Te_3 becomes metallic under pressure (Ye. S. Itskevich, S. V. Popova, and E. Ya. Atabayeva, DAN SSSR v. 153, 306, 1963), and clarify the details of this transition, the authors investigated, by the thermal analysis method, the phase diagrams of Bi_2Te_3 and Sb_2Te_3 under hydrostatic pressures up to 25,000 kg/cm². The temperature and pressure were measured accurate to $\pm 0.5^\circ\text{C}$ and $\pm 75 \text{ kg/cm}^2$, respectively. The melting curves of Bi_2Te_3 and Sb_2Te_3 have maxima at 607°C and 16,000 kg/cm² for Bi_2Te_3 and 110°C and 15,000 kg/cm² for Sb_2Te_3 . In addition to the maxima, both curves exhibit kinks which obviously re-

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ACCESSION NR: AP5013666

present ternary points corresponding to the crossing of the melting curves and the lines of phase transition into the solid state. However, the phase transitions themselves were not registered, probably because the heats of the transitions were too low. "The authors thank L. V. Poretskaya for graciously furnishing the antimony telluride sample." Orig. art. has: 1 figure.

ASSOCIATION: Institut kristallografi Akademii nauk SSSR (Institute of Crystallography, Academy of Sciences, SSSR)

SUBMITTED: 05 Feb 65

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SUB CODE: GP, IC

SR REF Sov: 501

OTHER: CO

ACCESSION NR: AP-010708

1995/007/004/1037 1142

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Fridkin, V. M.

AUTHOR: Gurvanji, M.
TITLE: Effect of high hydrostatic pressure on the photoconductivity of CdS single crystals

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1037-10⁴:2

SOURCE: Fizika tverdogo telia, 1977, v. 1, p. 101.
TOPIC TAGS: calcium sulfide, hydrostatic pressure, photoconductivity, nonequilibrium carrier, carrier lifetime

ABSTRACT: The purpose of the investigation was to make direct measurements of the lifetimes of the carriers as a function of the pressure, and to obtain equilibrium carrier concentrations as a function of the pressure. The technique used was the measurement of the absorption coefficient of the carrier in a single-crystal CdZn at the transmission wavelength of 1.542 microns.

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ACCESSION NR: AP5010708

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sented. The test results show that the variation of the photoconductivity with
pressure is due to changes in both the trap and the carrier lifetimes of the
semiconductor. According to the calculations, the carrier lifetime is about 1.5
times longer because of the decrease in pressure. The carrier density
is also decreased by about 10%.

The following figures are included:

AUTHORITY: Institut kristallografiya SSSR, Moscow (Institute of Crystallo-
graphy of SSSR)

SUBMITTER: 126-164

EXCL: 01

SUR CODE: SS

RT REF CIV: Y

REPORT: 004

Card 2/3